AF/3624/18

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. **020431.0750**

In re Application of:

NOEL TENORIO	§
	§
	§ Examiner: **LALITA M. HAMILTON**
	§
Serial No. **09/750,617**	§
	§
Filed: **20 DECEMBER 2000**	§ Art Unit: **3624**
	§
For: **SYSTEM AND METHOD FOR**	§
NEGOTIATING ACCORDING TO	§ Confirmation No.: **6553**
IMPROVED MATCHING CRITERIA	§

TRANSMITTAL

MAIL STOP: APPEAL BRIEF - PATENT
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

1. This Transmittal with Certificate of Mailing, including deposit account authorization (in duplicate);
2. Appeal Brief; and
3. Our return postcard which we would appreciate you date stamping and returning to us.

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Date of Deposit: ___6 April 2006___
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By: _____

The Director is hereby authorized to charge the $500.00 fee for the Appeal Brief to **Deposit Account No. 500777**. If an extension of time is necessary and is missing or inadequate, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) to the extent necessary. The Director is hereby authorized to charge any fee required for such Petition for Extension of Time to **Deposit Account No. 500777**. The Director is hereby authorized to charge any other fees required during the pendency of this Application to **Deposit Account No. 500777**.

Please link this application to Customer No. 53184 so that its status may be checked via the PAIR System.

Respectfully submitted,

_4/6/06_
Date

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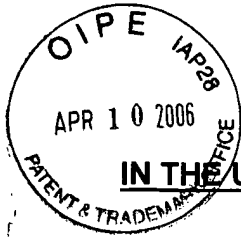
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APPEAL BRIEF

MAIL STOP: APPEAL BRIEF - PATENT
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Alexandria, VA 22313-1450

Dear Sir:

This is an appeal from the final rejection in the Office Action dated 12 August 2005, which rejected claims 1-70 in the present Application. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on 6 March 2006, resulting in an Appeal Brief due date of 6 April 2006.

Certificate of Mailing Under 37 C.F.R. § 1.8(a)
Date of Deposit: _____ 6 April 2006 _____
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By: _____

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This brief is accompanied by a Transmittal authorizing the requisite fee of $500.00 as set forth in 37 C.F.R. § 41.20(b)(2). In the event that the Transmittal is not enclosed or the authorized amount is incorrect, please charge any required fee to Deposit Account No. 500777. Please credit any excess payment to the same account.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any fee required for such Petition for Extension of Time and any other fee required by this document and not submitted herewith should be charged to Deposit Account No. 500777. Any refund should be credited to Deposit Account No. 500777.

REAL PARTY IN INTEREST (§ 41.37(c)(1)(i)):

The real party in interest in the present Application is i2 Technologies US, Inc., as indicated by:

an Assignment recorded on 20 December 2000, from the sole inventor to i2 Technologies, Inc., in the Assignment Records of the United States Patent and Trademark Office (the "PTO") at Reel 011423, Frame 0747; and

an Assignment recorded on 30 July 2001, from i2 Technologies, Inc. to i2 Technologies US, Inc., in the Assignment Records of the PTO at Reel 012032, Frame 0874.

RELATED APPEALS AND INTERFERENCES (§ 41.37(c)(1)(ii)):

There are no related appeals or declared interferences that will directly affect or be directly affected by a decision by the Board of Patent Appeals and Interferences (the "Board") in the present appeal to the knowledge of the undersigned.

STATUS OF CLAIMS (§ 41.37(c)(1)(iii)):

Claims 1-70 are pending in the present Application. The status of the pending claims is as follows:

Rejected: 1-70

Allowed or confirmed: None

Withdrawn: None

Objected to: None

Canceled: None

Appellants hereby appeal the Examiner's final rejection of claims 1-70.

STATUS OF AMENDMENTS (§ 41.37(c)(1)(iv)):

Appellants made no amendments to the present Application subsequent to the most recent Final Office Action.

SUMMARY OF CLAIMED SUBJECT MATTER (§ 41.37(c)(1)(v)):

The independent claims involved in the present appeal relate, in general, to systems, methods, or software for conducting or facilitating negotiations.

An exemplary system is shown in Fig. 1. Specification, p. 6, ll. 2-3. In this example, the system 10 includes a matching server 16 comprising a matching engine 18, a catalog database 20, and an offer database 22. *Id.* at p. 6, ll. 3-14. In some embodiments, the matching server 16 can be associated with a website or an electronic marketplace. *Id.* at p. 6, ll. 3-5. The matching server 16 can receive search requests, in the form of offers and counteroffers, from one or more buyers 12 and sellers 14. *Id.* at p. 7, ll. 8-10. Thus, the matching server 16 is an example of a means for receiving an offer. *Id.* Note that the matching server 16 can operate on one or more computer systems at one or more locations; thus, the one or more computer systems constitute an example of a means for accessing or receiving an offer. *Id.* at p. 6, ll. 29-30.

Using the information from the buyer(s) 12 and seller(s) 14 and functionality discussed below, the matching server 16 can mediate negotiations between the buyer(s) 12 and seller(s) 14. *Id.* at p. 7, ll. 8-10.

The offer database 22 is provided for storing offers generated by buyer(s) 12 and counter-offers generated by seller(s) 14. *Id.* at p. 14, ll. 13-14, 26-29. In some embodiments, the offer can include one or more parameters over which the buyer 12 will negotiate. *Id.* at ll. 1-2. Examples of parameters include parts, components, products or other tangible items; services; real property; and contracts or other legal instruments. *Id.* at p. 9, ll. 9-29. This information can be stored as values in a profile that reflects negotiable parameters of the offer. *Id.* at p. 14, ll. 4-5. It should be noted that the offer database 22 is an example of a means for storing profiles. *Id.* at ll. 13-14. The values in the profile can be values that reflect the true needs of the buyer 12, a desired outcome of the negotiation, or any other set of values. *Id.*

The matching server 16 includes a matching engine 18 that is configured to access the stored offer and counter-offer and compute the distance between parameters of the offer and counter-offer. *Id.* at p. 16, ll. 13-16. Thus, the matching engine 18 is an example of a means for accessing an offer and a means for computing a distance between values in a profile of an offer. *Id.* The matching engine 18 can compute the distance by using the following formula:

$$L_n = \sqrt[n]{\frac{\sum_{k}^{K} |available_k - target_k|^n}{K}}$$

where K represents the number of parameters in the subset, $available_k$ is the value for the available item obtained from the database 20 or 22 for the *kth* parameter, $target_k$ is the value specified for the target item for the *kth* parameter, the summation is over all *K* parameters in the subset, and *n* is the order of the distance measure. *Id.* at p. 7, ll. 17-27. In some embodiments, the value of *n* can be specified automatically by the matching server 16 based on information in the buyer's profile. *Id.* at p. 7, ll. 29-31; p. 8, ll. 13-25; p. 11, ll. 7-31.

In some embodiments, the matching server 16 can determine the value of n based on one or more words, as opposed to numbers, within the profile. *Id.* at p. 11, ll. 20-31. For example, "Exact Match" can correspond to $n=1$; "Close Match" can correspond to $n=2$; and "Cannot Be" (an exception that prohibits exact matches) can correspond to $n=-1$.

The parameters can be organized into one or more subsets, and the distance between the offer values and the profile values can be calculated for each of the subsets. *Id.* at p. 7, ll. 14-19. In some embodiments, a weight can be applied to the distance in order to establish a weighted distance for each of the one or more subsets. *Id.* at p. 10, ll. 1-20. The weight for each parameter subset can be specified as part of the profile. *Id.* The weighted distances can then be summed in order to calculate an overall distance. *Id.* at ll. 21-28. In some embodiments, a parameter subset can be computed as an absolute error between associated values or as a mean-square error between associated parameter values. *Id.* An absolute error measure is useful where an exact match is desired, whereas a mean-square error measure is useful for forcing values to closely match. *Id.* at p. 10, l. 28 – p. 11, l. 6.

If the distance is acceptably small, the matching server 16 can then cause the offer to be accepted. *Id.* at p. 16, ll. 13-26; p. 3, ll. 10-12. If the distance is not acceptably small, the matching server 16 can automatically modify one or more values in the offer such that the distance between the modified offer and the profiles of the buyer 12 and seller 14 are acceptably small. *Id.* at p. 16, ll. 13-26; p. 3, ll. 12-16. The matching server 16 can then cause the modified offer to be accepted by the buyer 12 and seller 14 to conclude the automatic negotiation. *Id.* Thus, the matching server 16 constitutes a means for automatically modifying one or more values in an offer and causing the modified offer to be accepted. *Id.*

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (§ 41.37(c)(1)(vi)):

Issue 1: Whether claims 1-4, 8-21, 25-37, 41-54, and 58-70 are patentable under 35 U.S.C. § 102(e) over U.S. Patent Application Publication No. 2002/0116317 to May ("May").

Issue 2: Whether claims 5-7, 22-24, 38-40, and 55-57 are patentable under 35 U.S.C. § 103(a) over May in view of U.S. Patent Application Publication No. 2003/0004850 to Li ("Li").

ARGUMENT (§ 41.37(c)(1)(vii)):

I. DISPOSITION OF CLAIMS

Claims 1-70 are currently pending in the application. Claims 1-4, 8-21, 25-37, 41-54, and 58-70 stand rejected under 35 U.S.C. § 102(e) over U.S. Patent Application Publication No. 2002/0116317 to May ("May"). Claims 5-7, 22-24, 38-40, and 55-57 stand rejected under 35 U.S.C. § 103(a) over May in view of U.S. Patent Application Publication No. 2002/0004850 to Li et al. ("Li"). A copy of May is provided in Appendix D; a copy of Li is provided in Appendix E.

II. MAY FAILS TO ANTICIPATE CLAIMS 1-70

A. May Fails to Disclose All Limitations of the Claims

A claim is anticipated by a prior art reference only if the reference discloses or inherently describes <u>every detail</u> of the claim. According to the MPEP, "[a] claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131. Also according to the MPEP, "[T]he identical invention must be shown in as *complete detail* as is contained in the ... claim." *Id.*

It is respectfully submitted that May fails to set forth each and every element as set forth in the present claims, in as complete detail as set forth by the claims, and therefore fails to anticipate the claims.

Referring to claim 1 as an exemplary claim, this claim recites *inter alia*:

> *a matching server operable to:*
>
> ...
> if the distance is not acceptably small, ***automatically modify one or more values in the offer such that the distances between the modified offer and the profiles of the first and second parties are acceptably small*** simultaneously and, in response, cause the modified offer to be accepted by both the first and second parties to conclude the automatic negotiation.

(Emphasis added). Thus, claim 1 is directed towards a server that under specified conditions (distance not acceptably small) *automatically* modifies one or more values in an offer. This allows the server to cause the modified offers to be accepted by both parties and conclude the *automatic* negotiation.

Applicants have repeatedly reviewed May, the Office Actions, and interviewed the Examiner. No disclosure of a server that automatically modifies values in an offer, causes the modified offer to be accepted, and conclude an automatic negotiation was found in May. Furthermore, none of the Office Actions to date include any explanation as to where in May such a disclosure is considered by the Examiner to be present. Finally, attempts to gain insight by requesting clarification during a telephone interview yielded only references back to the text contained in the Office Actions and an insistence by the Examiner that the Office Actions should be sufficient in terms of explaining the Examiner's position.

The above distinction of claim 1 over May was offered on page 23 of the Amendment filed 18 April 2005 in response to the Office Action dated 16 December 2004. In the Office Action that followed, the Examiner states, referring to May, that "[in May] if the RFP is not acceptable—distance not acceptably small, then a response to the bid changing parameters—counteroffer—may be submitted." Office Action, p. 4, ll. 6-7 (12 August 2005). During a telephone interview conducted on 1 December 2005, Applicant requested clarification with respect to this statement, pointing out that in May the system only allows a user to change values. The Examiner stated that the rejection was based on the capability of the May system to allow a user to change values as set forth in the Office Action. Given that the Examiner has seemingly conceded that May only allows for a user to change values, in contrast to claim 1 which requires that the server *automatically* changes values, Applicant is unclear as to why the present rejection has been maintained. Since May fails to disclose all of the limitations of claim 1, May cannot anticipate claim 1. Therefore, it is respectfully requested that this rejection be reconsidered and withdrawn.

With respect to independent claims 16, 17, 18, 33, 49, 50, 66, 67, 68, 69, 70, each of these claims includes limitations similar to those discussed above in connection with claim 1. Therefore, claims 16, 17, 18, 33, 49, 50, 66, 67, 68, 69, 70 are considered

patentably distinguishable over May for at least the reasons discussed above in connection with claim 1.

B. Office Action Applies Incorrect Standard for Anticipation Rejection

The final Office Action (dated 12 August 2005) states that "the Examiner is interpreting May as reading onto the invention *substantially* as claimed." *Id.* at ll. 8-9 (emphasis added). However, it is respectfully pointed out that "substantially as claimed" is not the correct standard for establishing a *prima facie* case of anticipation. A claim is anticipated by a prior art reference only if the reference discloses or inherently describes every detail of the claim. According to the MPEP, "[a] claim is anticipated only if *each and every element* as set forth in the claim is found, either *expressly or inherently* described, in a single prior art reference." MPEP 2131. Also according to the MPEP, "[T]he identical invention must be shown in as *complete detail* as is contained in the ... claim." *Id.*

C. Disqualification of May as Prior Art

The present application was filed 20 December 2000. May was filed on 11 June 2001. Therefore, because the filing date of May is after the filing date of the present application, May is not properly citable as prior art under 35 U.S.C. § 102(e). It is noted, however, that May claims priority to two provisional applications, filed 14 June 2000 and 9 June 2000, respectively. For this reason, it was requested that a showing be made under MPEP 2136.03 be made that "the provisional application(s) properly supports the subject matter relied upon to make the rejection in compliance with 35 U.S.C. 112, first paragraph." However, to date the Examiner has declined to provide such a showing.

Instead, the Examiner alleges that Applicant "acquiesced." Advisory Action, p. 2 (15 November 2005). During a telephone conversation on 17 November 2005, and again during the telephone interview on 1 December 2005, Applicant requested that the Examiner explain the basis of the allegation. However, both times the Examiner was unable to do so. Applicant respectfully submits that this allegation is baseless and contrary to fact.

D. Summary

In view of the discussion above, it is respectfully submitted that May fails to anticipate claims 1-4, 8-21, 25-37, 41-54, and 58-70. Therefore, it is respectfully submitted that the rejection of claims 1-4, 8-21, 25-37, 41-54, and 58-70 under 35 U.S.C. § 102(e) over May is improper and should be reversed. Appellant respectfully requests reversal of the Examiner's rejection of claims 1-4, 8-21, 25-37, 41-54, and 58-70 over May, and further requests allowance of claims 1-4, 8-21, 25-37, 41-54, and 58-70.

III. May in view of li fails to render the Claims obvious

A. Dependent Claims Allowable Because Independent Claims Are Allowable

Claims 5-7 depend from independent claim 1, claims 22-24 depend from independent claim 18, claims 38-40 depend from independent claim 33, and claims 55-57 depend from independent claim 50. Since each of claims 1, 18, 33, and 50 is considered to be in condition for allowance as discussed above, claims 5-7, 22-24, 38-40, and 55-57 are considered to be in condition for allowance by virtue of the fact that they depend from an allowable claim. In addition, claims 5-7, 22-24, 38-40, and 55-57 set forth additional subject matter that is considered to be patentably distinguishable over the prior art as discussed below.

B. May in View of Li Fails to Disclose Limitations of Dependent Claims

For example, the proposed combination of May and Li fails to disclose or suggest the specific way in which distance is calculated according to claim 5, where "distance" is a distance between values in an offer from a first party and values in a profile of a second party. The Examiner concedes that May is silent in this regard, instead relying on alleged teaching of Li. With respect to Li, the Examiner alleges that Li discloses formulas to calculate constraints, which the Examiner interprets as being used to calculate a distance between values in an offer and in a profile. However, it is respectfully submitted that it is unclear how the Examiner arrived at this interpretation. In addition, it is respectfully pointed out that the standards set forth by the MPEP require that all of the limitations of the

claim must be taught or suggested by the prior art in order to establish a *prima facie* case of obviousness:

> To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

MPEP § 2143.03. Thus, the mere fact that Li teaches the general use of formulas is insufficient for establishing a *prima facie* case of obviousness since Li (and May) fails to teach or suggest all of the limitations of claim 5.

Thus, Applicant respectfully submits that the Office Action has failed to properly establish a *prima facie* case of obviousness. A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion <u>in</u> the prior art. In re Lee, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. Id. at 1434-35.

Since claims 6 and 7 depend from claim 5, the discussion above in connection with claim 5 applies equally to claims 6 and 7. With respect to claims 22-24, 38-40, and 55-57, each of these claims includes limitations similar to those discussed above in connection with claim 5. Therefore, claims 22-24, 38-40, and 55-57 are considered patentably distinguishable over the proposed combination of May and Li for at least the reasons discussed above in connection with claim 5.

C. No Proper Motivation for Proposed Combination of References

Finally, Applicants maintain that the Examiner has failed to provide proper motivation for combining the teachings of Li with those of May. The final Office Action merely states that both Li and May disclose and suggest auction management systems and May is silent as to formulas that may be used. This seems to imply that the motivation stems from an assumption that the formulas in Li can be used in the system of May.

However, even assuming *arguendo* that May and Li do disclose such systems, this line of reasoning is insufficient for establishing motivation. The MPEP clearly states that, even if references can be combined, there must still be a showing that the prior art suggests the desirability of the combination:

> The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

MPEP 2143.01 (emphasis in original). In the instant case, the final Office Action fails to establish motivation since the final Office Action fails to provide any showing that the prior art suggests the desirability of the proposed combination.

D. Disqualification of May as Prior Art

The arguments presented above in Section II.C. in connection with the disqualification of May as prior art apply equally to the present issue, and are therefore incorporated here by reference.
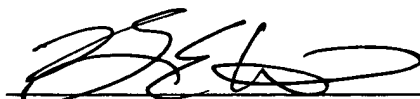
E. Summary

In view of the discussion above, it is respectfully submitted that the proposed combination of May and Li fails to render obvious claims 5-7, 22-24, 38-40, and 55-57. Therefore, it is respectfully submitted that the rejection of claims 5-7, 22-24, 38-40, and 55-57 under 35 U.S.C. § 103(a) over May in view of Li is improper and should be reversed. Appellant respectfully requests reversal of the Examiner's rejection of claims 5-7, 22-24, 38-40, and 55-57 over May, and further requests allowance of claims 5-7, 22-24, 38-40, and 55-57.

CONCLUSION:

Accordingly, for at least the reasons discussed above, claims 1-4, 8-21, 25-37, 41-54, and 58-70 cannot be anticipated by May, and claims 5-7, 22-24, 38-40, and 55-57 cannot be rendered obvious by the proposed combination of May and Li. For at least these reasons, Appellant respectfully requests reversal of the Examiner's rejections of claims 1-70 and requests allowance of claims 1-70.

Respectfully submitted,

4/6/06
Date

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APPENDIX A - CLAIMS APPENDIX
(37 C.F.R. § 41.37(c)(1)(viii))

1.   **(Original)** A computer-implemented system for conducting an automatic negotiation, comprising:

a database operable to store profiles for parties to the negotiation, each profile specifying values for one or more parameters being negotiated, these values reflecting a desirable outcome of the negotiation for the associated party; and

a matching server operable to:

access an offer from a first party containing values for one or more of the parameters being negotiated;

compute a distance between the values in the offer and the values in the profile of a second party;

if the distance is acceptably small, cause the offer to be accepted by the second party to conclude the negotiation; and

if the distance is not acceptably small, automatically modify one or more values in the offer such that the distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, cause the modified offer to be accepted by both the first and second parties to conclude the automatic negotiation.

2.   **(Original)** The system of Claim 1, wherein the values in the profile are selected from the group consisting of:

values reflecting true needs with respect to parameters being negotiated; and

values reflecting a desired outcome with respect to parameters being negotiated, the desired outcome being more favorable than the true needs.

3.   **(Original)** The system of Claim 1, wherein the matching server generates the offer for the first party automatically according to the profile of the first party.

4.   **(Original)** The system of Claim 1, wherein the matching server automatically accepts the offer on behalf of the second party if the distance is acceptably small.

5.   **(Previously Presented)** The system of Claim 1, wherein the distance can be designated L_n and is computed as:

$$L_n = \sqrt[n]{\frac{\sum_{k}^{K}\left|offer_k - profile_k\right|^n}{K}}$$

where K is number of parameters being negotiated, $offer_k$ is the offer value for the kth parameter, $profile_k$ is the profile value for the kth parameter, the summation is over all K parameters, and n is the order of the distance measure.

6.   **(Original)** The system of Claim 5, wherein the value of n is specified as part of the profile.

7.   **(Original)** The system of Claim 6, wherein the matching server is further operable to determine the value of n based on one or more words, as opposed to numbers, within the profile.

8.   **(Original)** The system of Claim 1, wherein:

the parameters are organized into one or more subsets;

the distance between the offer values and the profile values is computed for each parameter subset; and

the matching server is further operable to:

for each parameter subset, apply a weight to the distance to compute a weighted distance for the subset;

compute an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, cause the offer to be accepted by the second party to conclude the negotiation; and

if the overall distance is not acceptably small, automatically modify one or more values in the offer such that the overall distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, cause the modified offer to be accepted by the first and second parties to conclude the automatic negotiation.

9.   (Original) The system of Claim 8, wherein the weighted distances are summed over all the parameter subsets to compute the overall distance.

10.   (Original) The system of Claim 8, wherein the weight for each parameter subset is specified as part of the profile.

11.   (Original) The system of Claim 10, wherein the matching server is further operable to determine the weights for one or more parameter subsets based on one or more words, as opposed to numbers, within the profile.

12.   (Original) The system of Claim 8, wherein:

the distance for a first parameter subset is computed as an absolute error between the associated parameter values for the offer and profile;

the distance for a second parameter subset is computed as a mean-square error between the associated parameter values for the offer and profile; and

the weighted distances for the first and second parameter subsets are summed to compute the overall distance for the offer.

13.   (Original) The system of Claim 8, wherein the distance for a parameter subset is computed to reflect a preference selected from the group consisting of:

exact matches between the parameter values for the offer and profile and, where no exact match is possible for a parameter, a minimum difference between the values for the offer and profile for that parameter;

close matches between the parameter values for the offer and profile for all of the parameters simultaneously, an exact match not being required for any of the parameters; and

an exception prohibiting exact matches between the parameter values for the offer and profile.

14.	**(Original)** The system of Claim 1, wherein the negotiation is over parameters of one or more items selected from the group consisting of:

parts, components, products, or other tangible items;

services;

real property; and

contracts or other legal instruments.

15.	**(Original)** The system of Claim 1, further comprising a marketplace associated with the matching server.

16.   (Original) A computer-implemented system for conducting an automatic negotiation, comprising:

means for storing profiles for parties to the negotiation, each profile specifying values for one or more parameters being negotiated, these values reflecting a desirable outcome of the negotiation for the associated party;

means for accessing an offer from a first party containing values for one or more of the parameters being negotiated;

means for computing a distance between the values in the offer and the values in the profile of a second party;

means for, if the distance is acceptably small, causing the offer to be accepted by the second party to conclude the negotiation; and

means for, if the distance is not acceptably small, automatically modifying one or more values in the offer such that the distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, causing the modified offer to be accepted by the first and second parties to conclude the automatic negotiation.

17.   **(Original).** Software for conducting an automatic negotiation, the software embodied in a computer-readable medium and operable to:

access profiles of parties to the negotiation, each profile specifying values for one or more parameters being negotiated, these values reflecting a desirable outcome of the negotiation for the associated party;

access an offer from a first party that contains values for the parameters being negotiated;

compute a distance between the values in the offer and the values in the profile of a second party;

if the distance is acceptably small, cause the offer to be accepted by the second party to conclude the negotiation; and

if the distance is not acceptably small, automatically modify one or more values in the offer such that the distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, cause the modified offer to be accepted by the first and second parties to conclude the automatic negotiation.

18.   **(Previously Presented)** A computer-implemented method for facilitating an automatic negotiation, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

using the one or more computer systems, accessing profiles of parties to the negotiation, each profile specifying values for one or more parameters being negotiated, these values reflecting a desirable outcome of the negotiation for the associated party;

using the one or more computer systems, accessing an offer from a first party that contains values for the parameters being negotiated;

using the one or more computer systems, computing a distance between the values in the offer and the values in the profile of a second party;

if the distance is acceptably small, causing, using the one or more computer systems, the offer to be accepted by the second party to conclude the negotiation; and

if the distance is not acceptably small, then automatically modifying, using the one or more computer systems, one or more values in the offer such that the distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, causing, using the one or more computer systems, the modified offer to be accepted by both the first and second parties to conclude the automatic negotiation.

19.   **(Original)** The method of Claim 18, wherein the values in the profile are selected from the group consisting of:

values reflecting true needs with respect to parameters being negotiated; and

values reflecting a desired outcome with respect to parameters being negotiated, the desired outcome being more favorable than the true needs.

20.   **(Previously Presented)** The method of Claim 18, further comprising, using the one or more computer systems, generating the offer for the first party automatically according to the profile of the first party.

21.   **(Previously Presented)** The method of Claim 18, further comprising, using the one or more computer systems, automatically accepting the offer on behalf of the second party if the distance is acceptably small.

22.   **(Previously Presented)** The method of Claim 18, wherein the distance can be designated L_n and is computed as:

$$L_n = \sqrt[n]{\frac{\sum_{k}^{K} |offer_k - profile_k|^n}{K}}$$

where K is number of parameters being negotiated, $offer_k$ is the offer value for the kth parameter, $profile_k$ is the profile value for the kth parameter, the summation is over all K parameters, and n is the order of the distance measure.

23.   **(Original)** The method of Claim 22, wherein the value of n is specified as part of the profile.

24.   **(Previously Presented)** The method of Claim 23, further comprising, using the one or more computer systems, determining the value of n based on one or more words, as opposed to numbers, within the profile.

25. **(Previously Presented)** The method of Claim 18, wherein:

the parameters are organized into one or more subsets;

the distance between the offer values and the profile values is computed for each parameter subset; and

the method further comprises:

using the one or more computer systems, for each parameter subset, applying a weight to the distance to compute a weighted distance for the subset;

using the one or more computer systems, computing an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, causing, using the one or more computer systems, the offer to be accepted by the second party to conclude the negotiation; and

if the overall distance is not acceptably small, automatically modifying, using the one or more computer systems, one or more values in the offer such that the overall distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, causing, using the one or more computer systems, the modified offer to be accepted by the first and second parties to conclude the automatic negotiation.

26. **(Original)** The method of Claim 25, wherein the weighted distances are summed over all the parameter subsets to compute the overall distance.

27. **(Original)** The method of Claim 25, wherein the weight for each parameter subset is specified as part of the profile.

28. **(Previously Presented)** The method of Claim 27, further comprising determining, using the one or more computer systems, the weights for one or more parameter subsets based on one or more words, as opposed to numbers, within the profile.

29.   (Original) The method of Claim 25, wherein:

the distance for a first parameter subset is computed as an absolute error between the associated parameter values for the offer and profile;

the distance for a second parameter subset is computed as a mean-square error between the associated parameter values for the offer and profile; and

the weighted distances for the first and second parameter subsets are summed to compute the overall distance for the offer.

30.   (Original) The method of Claim 25, wherein the distance for a parameter subset is computed to reflect a preference selected from the group consisting of:

exact matches between the parameter values for the offer and profile and, where no exact match is possible for a parameter, a minimum difference between the values for the offer and profile for that parameter;

close matches between the parameter values for the offer and profile for all of the parameters simultaneously, an exact match not being required for any of the parameters; and

an exception prohibiting exact matches between the parameter values for the offer and profile.

31.   (Original) The method of Claim 18, wherein the negotiation is over parameters of one or more items selected from the group consisting of:

parts, components, products, or other tangible items;

services;

real property; and

contracts or other legal instruments.

32.   (Original) The method of Claim 18, wherein the negotiation is conducted within an electronic marketplace.

33. **(Original)** Software for conducting a negotiation, the software being embodied in a computer-readable medium and operable to:

at a first party, receive an offer generated at a second party containing values for one or more parameters being negotiated;

compute a distance between the values in the offer and the values in a profile of the first party, the profile specifying values for the parameters being negotiated to reflect a desirable outcome of the negotiation for the first party;

if the distance is acceptably small, accept the offer to conclude the negotiation; and

if the distance is not acceptably small, modify one or more values in the offer such that the distance is decreased and communicate the modified offer to the second party to continue the negotiation.

34. **(Original)** The software of Claim 33, further operable to modify the values in the offer in part according to an estimated profile of the second party.

35. **(Original)** The software of Claim 33, wherein the offer received at the first party is a counter-offer to an initial offer previously generated at the first party and communicated to the second party.

36. **(Original)** The software of Claim 35, further operable to generate the initial offer in part according to an estimated profile of the second party.

37. **(Original)** The software of Claim 33, wherein the values in the profile are selected from the group consisting of:

values reflecting true needs with respect to parameters being negotiated; and

values reflecting a desired outcome with respect to parameters being negotiated, the desired outcome being more favorable than the true needs.

38.   **(Previously Presented)** The software of Claim 33, wherein the distance can be designated L_n and is computed as:

$$L_n = \sqrt[n]{\frac{\sum_{k}^{K} |offer_k - profile_k|^n}{K}}$$

where K is number of parameters being negotiated, $offer_k$ is the offer value for the kth parameter, $profile_k$ is the profile value for the kth parameter, the summation is over all K parameters, and n is the order of the distance measure.

39.   **(Original)** The software of Claim 38, wherein the value of n is specified as part of the profile.

40.   **(Original)** The software of Claim 39, further operable to determine the value of n based on one or more words, as opposed to numbers, within the profile.

41.   **(Original)** The software of Claim 33, wherein:

the parameters are organized into one or more subsets;

the distance between the offer values and the profile values is computed for each parameter subset; and

the software is further operable to:

for each parameter subset, apply a weight to the distance to compute a weighted distance for the subset;

compute an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, accept the offer to conclude the negotiation; and

if the overall distance is not acceptably small, modify one or more values in the offer such that the overall distance is decreased and communicate the modified offer to the second party to continue the negotiation.

42.   **(Original)** The software of Claim 41, wherein the weighted distances are summed over all the parameter subsets to compute the overall distance.

43.   (Original).The software of Claim 41, wherein the weight for each parameter subset is specified as part of the profile.

44.   (Original) The software of Claim 43, further operable to determine the weights for one or more parameter subsets based on one or more words, as opposed to numbers, within the profile.

45.   (Original) The software of Claim 41, wherein:

the distance for a first parameter subset is computed as an absolute error between the associated parameter values for the offer and profile;

the distance for a second parameter subset is computed as a mean-square error between the associated parameter values for the offer and profile; and

the weighted distances for the first and second parameter subsets are summed to compute the overall distance for the offer.

46.   (Original) The software of Claim 41, wherein the distance for a parameter subset is computed to reflect a preference selected from the group consisting of:

exact matches between the parameter values for the offer and profile and, where no exact match is possible for a parameter, a minimum difference between the values for the offer and profile for that parameter;

close matches between the parameter values for the offer and profile for all of the parameters simultaneously, an exact match not being required for any of the parameters; and

an exception prohibiting exact matches between the parameter values for the offer and profile.

47.   (Original) The software of Claim 33, wherein the negotiation is over parameters of one or more items selected from the group consisting of:

parts, components, products, or other tangible items;

services;

real property; and

contracts or other legal instruments.

48.   **(Original)** The software of Claim 33, wherein the first party receives the offer from an electronic marketplace that is mediating the negotiation.

49.   **(Original)** A system for conducting a negotiation, comprising:

means for receiving at a first party an offer generated at a second party, the offer containing values for one or more parameters being negotiated;

means for computing a distance between the values in the offer and the values in a profile of the first party, the profile specifying values for the parameters being negotiated to reflect a desirable outcome of the negotiation for the first party;

means for, if the distance is acceptably small, accepting the offer conclude the negotiation; and

means for, if the distance is not acceptably small, modifying one or more values in the offer such that the distance is decreased and communicating the modified offer to the second party to continue the negotiation.

50.   **(Previously Presented)** A computer-implemented method of facilitating a negotiation, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

at a first party, receiving, using the one or more computer systems, an offer generated at a second party containing values for one or more parameters being negotiated;

using the one or more computer systems, computing a distance between the values in the offer and the values in a profile of the first party, the profile specifying values for the parameters being negotiated to reflect a desirable outcome of the negotiation for the first party;

if the distance is acceptably small, accepting, using the one or more computer systems, the offer conclude the negotiation; and

if the distance is not acceptably small, modifying, using the one or more computer systems, one or more values in the offer such that the distance is decreased and communicating, using the one or more computer systems, the modified offer to the second party to continue the negotiation.

51.   **(Previously Presented)** The method of Claim 50, further comprising modifying, using the one or more computer systems, the values in the offer in part according to an estimated profile of the second party.

52.   **(Original)** The method of Claim 50, wherein the offer received at the first party is a counter-offer to an initial offer previously generated at the first party and communicated to the second party.

53.   **(Previously Presented)** The method of Claim 52, further comprising generating, using the one or more computer systems, the initial offer in part according to an estimated profile of the second party.

54.   (Original).The method of Claim 50, wherein the values in the profile are selected from the group consisting of:

values reflecting true needs with respect to parameters being negotiated; and

values reflecting a desired outcome with respect to parameters being negotiated, the desired outcome being more favorable than the true needs.

55.   **(Previously Presented)** The method of Claim 50 wherein the distance can be designated L_n and is computed as:

$$L_n = \sqrt[n]{\frac{\sum_{k}^{K} |offer_k - profile_k|^n}{K}}$$

where K is number of parameters being negotiated, $offer_k$ is the offer value for the kth parameter, $profile_k$ is the profile value for the kth parameter, the summation is over all K parameters, and n is the order of the distance measure.

56.   **(Original)** The method of Claim 55, wherein the value of n is specified as part of the profile.

57.   **(Previously Presented)** The method of Claim 56, further comprising, using the one or more computer systems, determining the value of n based on one or more words, as opposed to numbers, within the profile.

58. **(Previously Presented)** The method of Claim 50, wherein:

the parameters are organized into one or more subsets;

the distance between the offer values and the profile values is computed for each parameter subset; and

the method further comprises:

using the one or more computer systems, for each parameter subset, applying a weight to the distance to compute a weighted distance for the subset;

using the one or more computer systems, computing an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, accepting, using the one or more computer systems, the offer to conclude the negotiation; and

if the overall distance is not acceptably small, modifying, using the one or more computer systems, one or more values in the offer such that the overall distance is decreased and communicating the modified offer to the second party to continue the negotiation.

59. **(Original)** The method of Claim 58, wherein the weighted distances are summed over all the parameter subsets to compute the overall distance.

60. **(Original)** The method of Claim 58, wherein the weight for each parameter subset is specified as part of the profile.

61. **(Previously Presented)** The method of Claim 60, further comprising determining, using the one or more computer systems, the weights for one or more parameter subsets based on one or more words, as opposed to numbers, within the profile.

62.　**(Original)** The method of Claim 58, wherein:

the distance for a first parameter subset is computed as an absolute error between the associated parameter values for the offer and profile;

the distance for a second parameter subset is computed as a mean-square error between the associated parameter values for the offer and profile; and

the weighted distances for the first and second parameter subsets are summed to compute the overall distance for the offer.

63.　**(Original)** The method of Claim 58, wherein the distance for a parameter subset is computed to reflect a preference selected from the group consisting of:

exact matches between the parameter values for the offer and profile and, where no exact match is possible for a parameter, a minimum difference between the values for the offer and profile for that parameter;

close matches between the parameter values for the offer and profile for all of the parameters simultaneously, an exact match not being required for any of the parameters; and

an exception prohibiting exact matches between the parameter values for the offer and profile.

64.　**(Original)** The method of Claim 50, wherein the negotiation is over parameters of one or more items selected from the group consisting of:

parts, components, products, or other tangible items;

services;

real property; and

contracts or other legal instruments.

65.　**(Original)** The method of Claim 50, wherein the first party receives the offer from an electronic marketplace that is mediating the negotiation.

66.   (Original) A computer-implemented system for conducting an automatic negotiation, comprising:

a database operable to store profiles for parties to the negotiation, each profile specifying values for one or more parameters being negotiated, the parameters being organized into one or more subsets, the parameter values reflecting a desirable outcome of the negotiation for the associated party; and

a matching server operable to:

access an offer from a first party containing values for one or more of the parameters being negotiated;

for each parameter subset, compute a distance between the values in the offer and the values in the profile of a second party;

for each parameter subset, apply a weight to the distance to compute a weighted distance for the subset;

compute an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, cause the offer to be accepted by the second party to conclude the negotiation; and

if the overall distance is not acceptably small, automatically modify one or more values in the offer such that the overall distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, cause the modified offer to be accepted by both the first and second parties to conclude the automatic negotiation.

67.   (Original)·Software for conducting an automatic negotiation, the software embodied in a computer-readable medium and operable to:

access profiles for parties to the negotiation, each profile specifying values for one or more parameters being negotiated, the parameters being organized into one or more subsets, the parameter values reflecting a desirable outcome of the negotiation for the associated party; and

access an offer from a first party containing values for one or more of the parameters being negotiated;

for each parameter subset, compute a distance between the values in the offer and the values in the profile of a second party;

for each parameter subset, apply a weight to the distance to compute a weighted distance for the subset;

compute an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, cause the offer to be accepted by the second party to conclude the negotiation; and

if the overall distance is not acceptably small, automatically modify one or more values in the offer such that the overall distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, cause the modified offer to be accepted by both the first and second parties to conclude the automatic negotiation.

68.   **(Previously Presented)** A computer-implemented method for facilitating an automatic negotiation, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

using the one or more computer systems, accessing profiles for parties to the negotiation, each profile specifying values for one or more parameters being negotiated, the parameters being organized into one or more subsets, the parameter values reflecting a desirable outcome of the negotiation for the associated party; and

using the one or more computer systems, accessing an offer from a first party containing values for one or more of the parameters being negotiated;

for each parameter subset, computing, using the one or more computer systems, a distance between the values in the offer and the values in the profile of a second party;

for each parameter subset, applying, using the one or more computer systems, a weight to the distance to compute a weighted distance for the subset;

using the one or more computer systems, computing an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, causing, using the one or more computer systems, the offer to be accepted by the second party to conclude the negotiation; and

if the overall distance is not acceptably small, automatically modifying, using the one or more computer systems, one or more values in the offer such that the overall distances between the modified offer and the profiles of the first and second parties are acceptably small simultaneously and, in response, causing, using the one or more computer systems, the modified offer to be accepted by both the first and second parties to conclude the automatic negotiation.

69.   **(Original)**·Software for conducting a negotiation, the software being embodied in a computer-readable medium and operable to:

at a first party, receive an offer generated at a second party containing values for one or more parameters being negotiated, the parameters being organized into one or more subsets;

for each parameter subset, compute a distance between the values in the offer and the values in a profile of the first party, the profile specifying values for the parameters being negotiated to reflect a desirable outcome of the negotiation for the first party;

for each parameter subset, apply a weight to the distance to compute a weighted distance for the subset;

compute an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, accept the offer to conclude the negotiation; and

if the overall distance is not acceptably small, modify one or more values in the offer such that the overall distance is decreased and communicate the modified offer to the second party to continue the negotiation.

70.   **(Previously Presented)** A computer-implemented method of facilitating a negotiation, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

at a first party, receiving, using the one or more computer systems, an offer generated at a second party containing values for one or more parameters being negotiated, the parameters being organized into one or more subsets;

for each parameter subset, computing, using the one or more computer systems, a distance between the values in the offer and the values in a profile of the first party, the profile specifying values for the parameters being negotiated to reflect a desirable outcome of the negotiation for the first party;

for each parameter subset, applying, using the one or more computer systems, a weight to the distance to compute a weighted distance for the subset;

using the one or more computer systems, computing an overall distance between the offer and the profile according to the weighted distances of the parameter subsets;

if the overall distance is acceptably small, accepting, using the one or more computer systems, the offer to conclude the negotiation; and

if the overall distance is not acceptably small, modifying, using the one or more computer systems, one or more values in the offer such that the overall distance is decreased and communicating the modified offer to the second party to continue the negotiation.

APPENDIX B - EVIDENCE APPENDIX

(37 C.F.R. § 41.37(c)(1)(ix))

No evidence is being submitted under 37 C.F.R. §§ 1.130, 1.131, or 1.132. ("May").

A copy of U.S. Patent Application Publication No. 2002/0116317 to May is provided in Appendix D; a copy of U.S. Patent Application Publication No. 2002/0004850 to Li et al. is provided in Appendix E.

APPENDIX C - RELATED PROCEEDINGS APPENDIX
(37 C.F.R. § 41.37(c)(1)(x))

There are no known appeals, interferences, or judicial proceedings that are related to or that will directly affect, be directly affected by, or have a bearing on the Board's decision regarding this Appeal. Accordingly, no decisions on related appeals are being submitted.

APPENDIX D

U.S. PATENT APPLICATION PUBLICATION NO. 2002/0116317 TO MAY